

CLAIMS

1. A valve gear of an internal combustion engine comprising:
an electric motor;

a cam mechanism which converts a rotational motion of the electric motor into a linear motion of a valve for opening and closing a cylinder by a cam; and

an electric motor control device which controls the electric motor such that an acceleration characteristic during a lift of the valve changes in correspondence to a rotation number of the internal combustion engine.

2. The valve gear according to claim 1, wherein the electric motor control device controls the electric motor such that when the rotation number of the internal combustion engine is low, the speed of the cam in predetermined sections after starting the lift of the valve and before finishing the lift becomes higher than the speed of the cam in an intermediate section between the predetermined sections, and when the rotation number of the internal combustion engine is high, the cam is rotated at a constant speed during the lift of the valve.

3. The valve gear according to claim 2, wherein the electric motor control device controls the electric motor such that a difference of the rotating speed of the cam is reduced between the predetermined sections and the intermediate section in accordance with an increase of the rotation number of the internal combustion engine.

4. The valve gear according to claim 1, wherein the electric motor control device controls the electric motor such that when the rotation number of the internal combustion engine is low, the cam is rotated at a constant speed during the lift, and when the rotation number of the internal combustion engine is high, the speed of the cam in predetermined sections after starting the lift of the valve and before finishing the lift becomes lower than the speed of the cam in an intermediate section between the predetermined sections.

5. The valve gear according to claim 4, wherein the electric motor control device controls the electric motor such that a difference of the rotating speed of the cam is increased between the predetermined section and the intermediate sections in accordance with an increase of the rotation number of the internal combustion engine.

6. A valve gear of an internal combustion engine comprising:
an electric motor;

a cam mechanism which converts a rotational motion of the electric motor into a linear motion of a valve for opening and closing a cylinder by a cam; and

electric motor control means for controlling the electric motor such that an acceleration characteristic during a lift of the valve changes in correspondence to a rotation number of the internal combustion engine.